



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-1014; Directorate Identifier 2015-NE-14-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Turbopan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Rolls-Royce Deutschland Ltd & Co KG (RRD) Tay 650-15 and Tay 651-54 turbopfan engines. This proposed AD was prompted by RRD updating the life limits for certain high-pressure turbine (HPT) disks. This proposed AD would require reducing the cyclic life limits for certain HPT disks. We are proposing this AD to prevent failure of the HPT disk, which could result in uncontained disk release, damage to the engine, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; phone: 49 0 33-7086-1064; fax: 49 0 33-7086-3276. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-1014; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Philip Haberlen, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7770; fax: 781-238-7199; email: philip.haberlen@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this NPRM. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-1014; Directorate Identifier 2015-NE-14-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2015-0056, dated March 31, 2015 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

A recent analysis identified the need to reduce the existing cyclic life limit of certain high-pressure turbine (HPT) stage 1 discs, part number (P/N) JR32013, as compared with the values published in RRD Tay 650 and Tay 651 engine Time Limit Manuals (TLM), Chapter 05-10-01.

Operation of the affected HPT Stage 1 disc P/N JR32013 beyond the reduced cyclic life limit would likely result in an unsafe condition.

This condition, if not corrected, could lead to part failure, possibly resulting in release of high energy debris with consequent damage to the aeroplane and/or injury to the occupants.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-1014.

Related Service Information under 1 CFR Part 51

RRD has issued Alert Non-Modification Service Bulletin No. TAY-72-A1821, Revision 1, dated March 26, 2015. The service information describes procedures for verifying if an applicable HPT stage 1 disk is installed and for removing the HPT stage 1 disk from service. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of Germany, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this NPRM because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD affects 23 engines installed on airplanes of U.S. registry. We also estimate that it would take about 0.5 hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. We estimate that the pro-rated cost of the life reduction would be about \$23,053 per engine. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$531,197.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Rolls-Royce Deutschland Ltd & Co KG: Docket No. FAA-2015-1014; Directorate Identifier 2015-NE-14-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce Deutschland Ltd & Co KG (RRD) Tay 650-15 and Tay 651-54 turbofan engines with high-pressure turbine (HPT) stage 1 disk, part number (P/N) JR32013, installed.

(d) Reason

This AD was prompted by RRD updating the life limits for certain HPT disks. We are issuing this AD to prevent failure of the HPT disk, which could result in uncontained disk release, damage to the engine, and damage to the airplane.

(e) Actions and Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) After the effective date of this AD, use the Accomplishment Instruction, paragraph 3.A.(1)(b) of RRD Alert Non-Modification Service Bulletin (NMSB) No. TAY-72-A1821, Revision 1, dated March 26, 2015 to calculate the HPT stage 1 disk consumed cyclic life of the affected engines.

(2) Remove the HPT stage 1 disk, P/N JR32013, from service within 100 flight cycles after the effective date of this AD or before exceeding the cyclic life limit as defined below, whichever occurs later:

(i) For RRD Tay 650-15 engines and Flight Plan A, the life limit is 18,900 flight cycles since new (FCSN).

(ii) For RRD Tay 650-15 engines and Flight Plan B, the life limit is 15,500 FCSN.

(iii) For RRD Tay 650-15 engines and Flight Plan C, the life limit is 11,500 FCSN.

(iv) For RRD Tay 650-15 engines and Flight Plan D, the life limit is 9,300 FCSN.

(v) For RRD Tay 651-54 engines regardless of flight plan or profile, the life limit is 10,873 FCSN.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(g) Related Information

(1) For more information about this AD, contact Philip Haberlen, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7770; fax: 781-238-7199; email: philip.haberlen@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2015-0056, dated March 31, 2015, for more information. You may examine the MCAI in the AD docket on

the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2015-1014.

(3) RRD Alert NMSB No. TAY-72-A1821, Revision 1, dated March 26, 2015, can be obtained from RRD, using the contact information in paragraph (g)(4) of this proposed AD.

(4) For service information identified in this proposed AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; phone: 49 0 33-7086-1064; fax: 49 0 33-7086-3276.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on May 12, 2015.

Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.
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